

WHAT WE CLAIM IS:

1. A semiconductor integrated circuit device comprising:
 - a first MISFET for a logic circuit having a first gate insulating film and a first gate electrode formed on said first gate insulating film;
 - a second MISFET having a second gate insulating film which has a thickness larger than that of said first gate insulating film;
 - a third MISFET for a memory cell having a third gate insulating film which has a thickness larger than that of said first gate insulating film; and
 - a first capacitive element having a fourth gate insulating film which has a thickness larger than that of said first gate insulating film and a fourth gate electrode formed on said fourth gate insulating film,wherein said fourth gate insulating film is formed on a semiconductor region formed in a semiconductor substrate such that said semiconductor region serves as one of two electrodes of said first capacitive element and said fourth gate electrode of said first capacitive element serves as the other of said two electrodes of said first capacitive element,
 - wherein said second MISFET operates at a first voltage,
 - wherein said first MISFET operates at a voltage lower than said first voltage, and
 - wherein said first capacitive element operates at a voltage lower than said first voltage.

2. A semiconductor integrated circuit device according to claim 1, wherein said second MISFET constitutes at least one of an input MISFET and an output MISFET.

3. A semiconductor integrated circuit device according to claim 1, wherein said third MISFET is provided in said memory cell of a random access memory.

4. A semiconductor integrated circuit device according to claim 1, wherein said first MISFET is provided in a microprocessor unit.

5. A semiconductor integrated circuit device according to claim 1, wherein said first capacitive element is provided in a phase-locked loop circuit.

6. A semiconductor integrated circuit device comprising:
a first MISFET for a logic circuit provided in a microprocessor unit having a first gate insulating film and a first gate electrode formed on said first gate insulating film;

a second MISFET having a second gate insulating film which has a thickness larger than that of said first gate insulating film;

a third MISFET for a memory cell of a random access memory having a third gate insulating film which has a thickness larger than that of said first gate insulating film; and

a first capacitive element having a fourth gate insulating film which has a thickness larger than that of said first gate insulating film and a fourth gate electrode formed on said fourth gate insulating film,

wherein said fourth gate insulating film is formed on a semiconductor region formed in a semiconductor substrate such that said semiconductor region serves as one of two electrodes of said first capacitive element and said fourth gate electrode of said first capacitive element serves as the other of said two electrodes of said first capacitive element,

wherein said second MISFET operates at a first voltage,

wherein said first MISFET operates at a voltage lower than said first voltage, and

wherein said first capacitive element operates at a voltage lower than said first voltage.

7. A semiconductor integrated circuit device according to claim 6, wherein said second MISFET constitutes at least one of an input MISFET and an output MISFET.

8. A semiconductor integrated circuit device according to claim 6, wherein said first capacitive element is provided in a phase-locked loop circuit.

9. A semiconductor integrated circuit device comprising:
a first MISFET for a logic circuit having a first gate insulating film and a first gate electrode formed on said first gate insulating film;

a second MISFET having a second gate insulating film which has a thickness larger than that of said first gate insulating film;

a third MISFET for a memory cell of a random access memory having a third gate insulating film which has a thickness larger than that of said first gate insulating film; and

a first capacitive element having a fourth gate insulating film which has a thickness larger than that of said first gate insulating film and a fourth gate electrode formed on said fourth gate insulating film,

wherein said fourth gate insulating film is formed on a semiconductor region formed in a semiconductor substrate such that said semiconductor region serves as one of two electrodes of said first capacitive element and said fourth gate electrode of said first capacitive element serves as the other of said two electrodes of said first capacitive element,

wherein said second MISFET operates at a first voltage,

wherein said first MISFET operates at a voltage lower than said first voltage, and

wherein said first capacitive element operates at a voltage lower than said first voltage.

10. A semiconductor integrated circuit device according to claim 9, wherein said second MISFET constitutes at least one of an input MISFET and an output MISFET.

11. A semiconductor integrated circuit device according to claim 9, wherein said first capacitive element is provided in a phase-locked loop circuit.

12. A semiconductor integrated circuit device comprising:

- a first MISFET for a logic circuit having a first gate insulating film and a first gate electrode formed on said first gate insulating film;
- a second MISFET having a second gate insulating film which has a thickness larger than that of said first gate insulating film;
- a third MISFET for a memory cell having a third gate insulating film; and
- a first capacitive element having a fourth gate insulating film which has a thickness larger than that of said first gate insulating film and a fourth gate electrode formed on said fourth gate insulating film,

wherein said fourth gate insulating film is formed on a semiconductor region formed in a semiconductor substrate such that said semiconductor region serves as one of two electrodes of said first capacitive element and said fourth gate electrode of said first capacitive element serves as the other of said two electrodes of said first capacitive element,

wherein said second MISFET operates at a first voltage,

wherein said first MISFET operates at a voltage lower than said first voltage, and

wherein said first capacitive element operates at a voltage lower than said first voltage.

13. A semiconductor integrated circuit device according to claim 12, wherein said second MISFET constitutes at least one of an input MISFET and an output MISFET.

14. A semiconductor integrated circuit device according to claim 12, wherein said first capacitive element is provided in a phase-locked loop circuit.

15. A semiconductor integrated circuit device comprising:
a first MISFET and a capacitive element each having a first gate insulating film and a first gate electrode formed on said first gate insulating film, respectively; and

a second MISFET having a second gate insulating film which has a thickness less than that of said first gate insulating film,

wherein a thickness of said second gate insulating film is less than 3nm,

wherein said first gate insulating film of said first capacitive element is formed on a semiconductor region formed in a semiconductor substrate such that said semiconductor region serves as one of two electrodes of said first capacitive element and said first gate electrode of said first capacitive element serves as the other of said two electrodes of said first capacitive element,

wherein said first capacitive element is provided in a phase-locked loop circuit,

wherein said first MISFET operates at a first voltage,

wherein said second MISFET operates at a voltage lower than said first voltage, and

wherein said first capacitive element operates at a voltage lower than said first voltage.

16. A semiconductor integrated circuit device according to claim 15, wherein said first MISFET constitutes at least one of an input MISFET and an output MISFET.

17. A semiconductor integrated circuit device according to claim 15, wherein said second MISFET is provided in a processor unit.

18. A semiconductor integrated circuit device according to claim 15, wherein said second MISFET constitutes a logic circuit.

19. A semiconductor integrated circuit device comprising:
a first MISFET having a first gate insulating film and a first gate electrode formed on said first gate insulating film,

wherein a thickness of said first gate insulating film is less than 3nm;

a second MISFET having a second gate insulating film which has a thickness greater than that of said first gate insulating film; and

a first capacitive element having a third gate insulating film which has a thickness greater than that of said first gate insulating film and a third gate electrode formed on said third gate insulating film,

wherein said third gate insulating film is formed on a semiconductor region formed in a semiconductor substrate such that said semiconductor region serves as one of two electrodes of said first capacitive element and said third

gate electrode of said first capacitive element serves as the other of said two electrodes of said first capacitive element,

wherein said first capacitive element is provided in a phase-locked loop circuit,

wherein said second MISFET operates at a first voltage,

wherein said first MISFET operates at a voltage lower than said first voltage, and

wherein said first capacitive element operates at a voltage lower than said first voltage.

20. A semiconductor integrated circuit device according to claim 19, wherein said second MISFET constitutes at least one of an input MISFET and an output MISFET.

21. A semiconductor integrated circuit device according to claim 19, wherein said first MISFET is provided in a microprocessor unit.

22. A semiconductor integrated circuit device according to claim 19, wherein said first MISFET constitutes a logic circuit.

23. A semiconductor integrated circuit device comprising:
a first MISFET having a first gate insulating film and a first gate electrode formed on said first gate insulating film,
a second MISFET having a second gate insulating film which has a thickness greater than that of said first gate insulating film; and

a first capacitive element having a third gate insulating film which has a thickness greater than that of said first gate insulating film and a third gate electrode formed on said third gate insulating film,

wherein said third gate insulating film is formed on a semiconductor region formed in a semiconductor substrate such that said semiconductor region serves as one of two electrodes of said first capacitive element and said third gate electrode of said first capacitive element serves as the other of said two electrodes of said first capacitive element,

wherein said second MISFET operates at a first voltage,

wherein said first MISFET operates at a voltage lower than said first voltage, and

wherein said first capacitive element operates at a voltage lower than said first voltage.

24. A semiconductor integrated circuit device according to claim 23, wherein a thickness of said first gate insulating film is less than 3nm.

25. A semiconductor integrated circuit device according to claim 23, wherein said first capacitive element is provided in a phase-locked loop circuit.

26. A semiconductor integrated circuit device according to claim 23, wherein said first MISFET constitutes a logic circuit.